

SEVEN ADDITIONS TO THE FLORA OF NEW MEXICO

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ABSTRACT

New records for New Mexico are reported for seven angiosperms.

KEY WORDS: New Mexico, angiosperms, range extensions, flora

Recent collecting activities by the author, accompanied by related herbarium investigations, have resulted in the addition of seven angiosperm species to the flora of New Mexico. Five of these records represent collections made since early 1993, while the other two have been documented earlier and more extensively in the state, but do not appear in Martin & Hutchins (1980, 1981), or the other recent literature covering new elements in the New Mexico flora.

ASTERACEAE

Baccharis havardii A. Gray. New Mexico. Otero Co.: SENW sec 33, T25S R20E, in the Brokeoff Mountains, elev. 5700 feet, scattered one foot tall subshrubs on a 20° northeast-facing limestone slope with *Berberis haematocarpa*, *Aristida glauca*, *Rhus trilobata*, *Xanthocephalum sarothrae*, *Cercocarpus montanus*, *Garrya flavescens*, *Pinus edulis*, *Yucca baccata*, *Muhlenbergia setifolia*, 28 Sep 1993, McIntosh 2925 (NMC).

Comment: First record for New Mexico, a range extension of a few km from adjacent Texas. Martin & Hutchins (1980, 1981) state that this species has been reported from the Davis and Guadalupe mountains of Texas and could occur in adjacent areas of New Mexico.

Gnaphalium leucocephalum A. Gray. New Mexico. Upper Pecos River, 27 Jul 1898, Matthy & Coghill 111 (NMC) [determined by Guy Nesom 1990]; "Pecos",

Sep 1904, *Bartlett 41* (NMC) [determined by Guy Nesom 1990]; Hidalgo Co.: NWSW sec. 8, T32S R19W, west side of Animas Mountains, Gray Ranch, elev. 6000 feet, several plants in rhyolitic gravelly arroyo bottom with *Quercus arizonica*, *Juniperus monosperma*, 21 Aug 1993, *McIntosh 2839* (NMC).

Comment: First record for New Mexico. The two earlier records appear to have been overlooked in the preparation of the *Flora of New Mexico* (Martin & Hutchins 1980, 1981). Kearney & Peebles (1960) and Correll & Johnston (1970) describe the species range as southern Arizona, Trans-Pecos Texas, southern California, and Sonora.

BRASSICACEAE

Brassica tournefortii Gouan. New Mexico. Dona Ana Co.: along I-10 (S of Las Cruces) 1.7 mi. N of the Mesquite Exit (no. 154), road-side, sandy soil, about 3900 ft. elev., 4 Mar 1995, *Worthington 24113* (NMC Ex. Herb. UTEP); Las Cruces, 1/2 block west of corner of Luna St. and Utah Ave., approx. 100 rosettes of varying size up to 1 foot in diameter along curb on south side of Utah Ave. at edge of sandy vacant lot, some smaller plants were developing flowering culms while most of the plants consisted of vegetative rosettes, corollas pale yellow to white, seed bearing portion of fruit terete and slightly torulose, most plants of the population were slightly to moderately frostbitten by temperatures in low teens (Fahrenheit) 2 and 3 nights ago, assoc. spp.: *Cynodon dactylon*, *Sisymbrium irio*, *Tribulus terrestris*, *Amaranthus palmeri*, 20 Dec 1996, *McIntosh 3137* (NMC).

Comment: First record for New Mexico, a ca. 30 km northward range extension for this northern Africa native from recently documented occurrences in El Paso and Hudspeth counties in Texas (Lemke & Worthington 1991). According to Rollins (1993) the New World occurrences of this species are in southern Nevada, southern California, Arizona, western Texas, and northwestern México; and it is spreading in Texas and eastward in Arizona.

PLANTAGINACEAE

Plantago bigelovii A. Gray subsp. *californica* (Greene) Bassett. New Mexico. Hidalgo Co.: SW Sec. 5, T23S R20W, just northwest of the South Lordsburg Playa, elev. 4160 feet, small groups under *Atriplex obovata* and other shrubs, level site with heavy clay alkaline soil, 14 Apr 1993, *McIntosh 2626* (NMC) [determined by R. Sivinski 1997].

Comment: First record for New Mexico, a range extension from southeast Arizona. Bassett (1996) states that this subspecies occurs in California, southern and southeast Arizona, and western México.

VALERIANACEAE

Valeriana sorbifolia H.B.K. New Mexico. Hidalgo Co.: SE 1/4 SE 1/4 sec 8, T32S R19W, west slope of the Animas Mountains on Gray Ranch, elev. 6700 feet, plants in dense patch in rich moist loamy soil pocket in small level area on 10° north facing rhyolite slope with *Pinus cembrioides*, *Cercocarpus montanus*, *Ptelea trifoliata*, *Muhlenbergia pauciflora*, 23 Aug 1994, McIntosh 3016 (NMC).

Comment: First record for New Mexico, a 25 km northward range extension from the north end of the San Luis Mountains in the extreme NW corner of Chihuahua (Spellenberg & Soreng 6823 [NMC]). Other locations have been recorded in the Dragoon and Huachuca mountains in adjacent Cochise Co., Arizona. Kearney & Peebles (1960) give the range of the species as extending from southern Arizona to Central America.

VERBENACEAE

Bouchea prismatica O. Ktze. var. *brevirostra* Grenz. New Mexico. Hidalgo Co.: SENE Sec. 16, T30S R20W, approximately 3 miles east of Black Mountain, Peloncillo Mountains, elev. 5060 feet, corolla dark blue, plant upright, occasional in swale with *Zauschneria californica*, *Diodia teres*, and other annuals, vegetation in general vicinity is grassland with widely scattered *Juniperus*, soil derived from rhyolite, 4 Sep 1996, McIntosh 3121 (NMC).

Comment: First record for New Mexico, a range extension from Cave Creek in the Chiricahua Mountains of adjacent Cochise Co., Arizona. Kearney & Peebles (1960) and Correll & Johnston (1970) give the range for this variety from Val Verde Co., Texas, and southern Arizona through México to Colombia and the Lesser Antilles.

Verbena gracilis Desf. New Mexico. Hidalgo Co.: Alamo Hueco Mtns., Big Thicket Spring, 1 mile south windmill in canyon bottom and hillside, 3 Apr 1977, Miller s.n. (SNM); San Simeon Valley (31° 50' N, 109° 2' W; T8S, R21&22W) between Rodeo and Arizona - New Mexico line, 4100 feet elevation, fine textured soils of the valley bottom in desert grasslands (*Hilaria mutica*, *Scleropogon brevifolius*, *Bouteloua eriopoda*, *Ephedra trifurca*, *Prosopis*, *Gutierrezia sarothrae*), occasional in tobosa swales, 7 Aug 1977, Moir 112 (NMC); NWNE Sec 2, T33S R20W, west of Animas Mountains on the Gray Ranch, elev. 5180 feet, single plant, upright habit, in a 2-track road in sandy soil with *Bouteloua gracilis*, *Zinnia grandiflora*, *Desmanthus cooleyi*, *Evolvulus sericeous*, 20 Sep 1994, McIntosh 3060 (NMC); Mora Co.: Wagon Mound, Canyon Colorado Equid Sanctuary, sec. 5, T21N R24E, elev. 5990 feet, habitat: open grassland with slight eastern slope, location: The Sanctuary is located 24 miles northeast of Wagon Mound, entering Quagga Park from Canadian River Park, heading north along fence line 0.3 m, on west side of road, 9 Aug 1990, Smith 101 (NMC).

Comment: This species appears to have been overlooked in the preparation of the *Flora of New Mexico* (Martin & Hutchins 1980, 1981), with the earlier collections being made about the time the book went to press. Kearney & Peebles (1960) state that this species ranges from southern Arizona to southern México.

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LITERATURE CITED

- Bassett, I.J. 1966. Taxonomy of North American *Plantago* L., section *Micropsyllium* Decne. Can. J. Bot. 44:467-479.
- Correll, D.S. & M.C. Johnston. 1970. *Manual of the Vascular Plants of Texas*. Texas Research Foundation, Renner, Texas.
- Kearney, T.H. & R.H. Peebles, and collaborators. 1960. *Arizona Flora*. Supplement by J.T. Howell, E. McClintock, and collaborators. University of California Press, Berkeley, California.
- Lemke, D.E. & R.D. Worthington. 1991. *Brassica* and *Rapistrum* (Brassicaceae) in Texas. Southw. Naturalist 36(2):194-197.
- Rollins, R.C. 1993. The Cruciferae of Continental North America. Systematics of the Mustard Family from the Arctic to Panama. Stanford University Press, Stanford, California.
- Martin, W.C. & C.R. Hutchins. 1980, 1981 (vols. 1 & 2 respectively). *A Flora of New Mexico*. J. Cramer, Vaduz, Germany.